

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Heather N. Bean et al.
Serial No.: 10/016,199
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Title: METHOD AND APPARATUS FOR MANAGING POWER IN A
DEVICE AFTER A BATTERY FAILURE

Confirmation No: 4347
Examiner: James M. Hannett
Group Art Unit: 2622

**Mailstop: Appeal Brief - Patents
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REPLY BRIEF

Introductory Comments

In response to the Examiner's Answer dated September 7, 2007 (hereinafter "the Examiner's Answer"), please consider the following remarks.

Remarks

The Examiner’s Answer indicates that U.S. Patent No. 5,790,878 to Anderson et al. (hereinafter “Anderson”) “sets a threshold value that is incrementally higher than a minimum operating voltage (to permit orderly shutdown of the camera 110 processes).” (Page 11 of the Examiner’s Answer.) The Examiner’s Answer then states that “[a]lthough the camera of Anderson shuts down the camera prior to the batteries’ voltage dropping below this threshold, the examiner asserts that battery failure has occurred.” (Id.) To support this position, the Examiner’s Answer further indicates that “Anderson teaches on Column 2, Lines 18-40 that the power manager monitors the voltage to detect a power failure within the camera and specifies that this power failure occurs when the power is less than a specified threshold.” (Id.) The Examiner’s Answer then alleges that the Appellant claims the same process in claim 44. (Id.)

The Appellant respectfully disagrees with these characterizations of Anderson and the present claims. As discussed in the Appeal Brief, Anderson specifically distinguishes between a *power failure*, “in which the camera operating power is less than a specified threshold value” (column 2, lines 20-22), and a *failure of the main batteries*, “when their output voltage has fallen below a minimum operational voltage level” (column 4, line 66, to column 5, line 1). Further, Anderson indicates that the threshold for triggering a power failure is “incrementally *higher than the minimum operating voltage*” at which the batteries fail to allow orderly shutdown of the camera. (See column 6, lines 45-48.) Thus, Anderson indicates that the triggering of power failure at the threshold value in Anderson is not the same as battery failure, either as defined in Anderson (as shown above), or as defined in present claim 44 (“a condition in which the battery’s charge drops below a level required to operate the device”). In fact, Anderson specifically indicates that its threshold value is above the minimum operating voltage (i.e., *above* a level required to operate the device.) Thus, Anderson appears to directly contradict the assertion in the Examiner’s Answer that “Anderson teaches allowing the device to operate until battery failure has occurred, wherein the battery failure occurs when the charge drops below the set threshold.” (Page 12 of the Examiner’s Answer.)

Instead, Anderson initiates its “powerfail powerdown sequence,” as described in the Appeal Brief, once the threshold value for the battery voltage is reached (see column 6, lines 52-64), which is *higher* than the main battery failure level noted above. During the powerdown sequence in Anderson, various tasks are performed, such as forcing a full DRAM refresh, placing the DRAM in self-refresh mode, and halting the CPU. (See Fig. 7, and column 7, lines 31-57.) In other words, Anderson attempts to shut down the camera in an orderly fashion specifically *before* battery failure occurs to prevent loss of image data and the like. The Anderson process is thus directly opposed to the method of claim 44, in which the device is allowed to operate until a battery failure (as defined above) occurs, after which an attempt to restart the device is made. The device is then shut down properly using residual charge in the battery.

In light of the foregoing, the Appellant respectfully contends that independent method claim 44 is allowable in view of the combination of Anderson and U.S. Patent No. 6,687,839 to Tate et al (hereinafter “Tate”). Further, as independent device claims 49 and 56 incorporate similar provisions as claim 44, the Appellant respectfully asserts that these claims are allowable in view of Anderson and Tate as well.

Claims 45-48 depend from independent claim 1, claims 50-55 depend from independent claim 49, and claims 57 and 58 depend from independent claim 56, thus incorporating the provisions of their respective independent claims. Thus, the Appellant respectfully asserts that claims 45-48, 50-55, 57, and 58 are allowable for at least the same reasons provided above in support of independent claims 44, 49, and 56, and such indication is respectfully requested.

Conclusion

In light of the foregoing remarks, the Appellant contends that the final rejection of claims 44-58 is erroneous, and respectfully requests its reversal.

The Appellant believes that no additional fees are due with respect to this filing. However, should the Office determine that additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 08-2025.

Respectfully submitted,

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